



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 25, 1997

Mr. John D. Wagoner
U.S. Department of Energy
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Richland, WA 99352

Mr. Henry J. Hatch
Fluor Daniel Hanford, Inc.
2420 Stevens Ctr. MSIN: H5-20
Richland, WA 99352

Mr. David B. Van Leuven
Rust Federal Services of Hanford, Inc.
P.O. Box 700, MSIN: H6-10
Richland, WA 99352



Dear Messrs. Wagoner, Hatch, and Van Leuven:

Re: Completion of Corrective Measures at the 222-S Laboratory Complex

The Washington State Department of Ecology (Ecology) conducted an inspection of the 222-S Laboratory Complex on September 27 and October 8, 1996, in response to a pressurized release of corrosive mixed waste from a laboratory fume hood waste collection bottle. The inspection identified six violations of Washington Administrative Code (WAC) chapter 173-303, Dangerous Waste Regulations. Corrective measures for these violations, including time lines for their completion, were developed in collaboration with the U.S. Department of Energy (USDOE), Fluor Daniel Hanford, Inc. (FDH), and Rust Federal Services of Hanford, Inc. (RFSH). The corrective measures were formally transmitted to USDOE, FDH, and RFSH in a Notice of Correction dated November 7, 1996.

A summary of the violations cited, their associated corrective measures, and completion due dates is as follows:

1. Interim Status Permits.

Failure to describe all waste management processes occurring at the 222-S Laboratory Complex in the facility's Part A, form 3, per WAC 173-303-805, Interim Status Permits.

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Revise Part A: Due January 6, 1997, extended to March 3, 1997.

2. Accumulating Dangerous Wastes On-Site.

Failure to maintain sufficient control of satellite accumulated waste per WAC 173-303-200, Accumulating Dangerous Wastes On-Site.

Revise waste management procedures and training plan. Train staff to requirements for management of satellite accumulation areas: Due February 3, 1997.

3. Accumulating Dangerous Wastes On-Site.

Failure to transfer mixed waste initially accumulated in laboratory fume hoods to 90-day or permitted storage area per WAC 173-303-200, Accumulating Dangerous Wastes On-Site.

Designate satellite accumulation areas for all waste streams in the 222-S Laboratory Complex: Due December 9, 1996.

4. Requirements for Generators of Dangerous Waste.

Failure to adequately designate mixed wastes generated in laboratory fume hoods per WAC 173-303-170, Requirements for Generators of Dangerous Waste.

Accurately characterize all waste streams generated in laboratory fume hoods within the 222-S Laboratory Complex: Due December 9, 1996, extended to February 3, 1997.

5. Code of Federal Regulations (CFR) 265.13 General Waste Analysis by reference of WAC 173-303-400, Interim Status Facility Standards.

Failure to incorporate adequate verification parameters in the 219-S Waste Analysis Plan to confirm the facility's knowledge of wastes generated outside of the 222-S Laboratory Complex per 40 CFR 265.13 General Waste Analysis by reference of WAC 173-303-400, Interim Status Facility Standards.

Submit addendum to 219-S tank system waste analysis plan (WAP) detailing verification parameters: Due December 9, 1996. USDOE, FDH, and RFSH submitted a revised 219-S WAP by December 9, 1996, which failed to meet the requirements of Ecology's Notice of Correction. FDH and RFSH agreed to meet these requirements by February 21, 1997. This deadline was extended by Ecology without a formal due date to allow thorough completion of this corrective measure, so long as no waste generated outside of the 222-S Laboratory Complex was received for transfer to the 219-S tank system until a satisfactory 219-S WAP

was in place.

6. Use and Management of Containers.

Failure to ensure waste containers are compatible with waste accumulated in them per WAC 173-303-630, Use and Management of Containers.

Revise waste management procedures to incorporate instruction for compatible container use: Due December 9, 1996.

USDOE, FDH, and RFSH submitted a report, as required, on February 3, 1997, documenting completion of the corrective measures. Ecology performed document reviews of this report and 222-S Laboratory Complex analytical and waste management procedures from February 1997 through March 1997. Ecology also performed follow-up inspections of the 222-S Laboratory Complex on January 6, 1997, and February 13, 1997. Results from these reviews and follow-up inspections revealed corrective measures one and six (above) have been completed. USDOE, FDH, and RFSH failed to complete corrective measures two, three, four, and five (above).

Ecology's follow-up inspections and documents review revealed constituents of mixed waste streams generated by laboratory analytical procedures were poorly identified and/or quantified. Furthermore, USDOE, FDH, and RFSH failed to maintain control over accumulation of these wastes. The combination of these failures continues to create the potential for further worker safety and waste management problems. The follow-up inspections and documents review have revealed the violations cited in the November 7, 1996, Notice of Correction are systemic in nature.

The following violations were identified from Ecology's follow-up inspections and documents review conducted subsequent to USDOE, FDH, and RFSH's February 3, 1997, final report.

VIOLATIONS:

#1) WAC 173-303-200, Accumulating Dangerous Wastes On-Site.

USDOE, FDH, and RFSH failed to maintain control of waste accumulated in the 222-S Laboratory Complex per WAC 173-303-200 (2), Satellite Accumulation.

#2) WAC 173-303-170, Requirements for Generators of Dangerous Waste.

USDOE, FDH, and RFSH failed to obtain information to properly describe and designate wastes generated in the 222-S Laboratory Complex per WAC 173-303-070 through WAC 173-303-100, Designation of Dangerous Waste.

#3) 40 CFR 265.13 General Waste Analysis by reference of WAC 173-303-400, Interim Status Facility Standards.

USDOE, FDH, and RFSH failed to develop or follow a written waste analysis plan which described adequate confirmation procedures and parameters for waste transferred to the 219-S tank system per 40 CFR. Subpart B. general waste analysis, (a) and (b). Furthermore, USDOE, FDH, and RFSH accepted waste for treatment, storage, or disposal without adequate confirmation of generator's knowledge of the waste.

Be advised that, due to continuance of the violations reported complete by USDOE, FDH, and RFSH on February 3, 1997, a penalty, per Revised Code of Washington (RCW) 70.105.080, is pending. Failure to correct the three violations cited in this letter may result in the issuance of an administrative order and/or additional penalties per RCW 70.105.095 and 70.105.080, respectively. In order to correct the violations identified in this letter, please complete the following corrective measures within the time frames specified. Ecology will visit the 222-S Laboratory Complex, as necessary, to ensure waste generation and management are occurring in a safe and compliant manner and that systemic waste management problems are being addressed. A request for additional time to complete the required corrective measures identified in this letter must be in writing and received by me for consideration no later than April 1, 1997.

CORRECTIVE MEASURES:

Corrective Measure #1: Accumulating Dangerous Waste On-Site, WAC 173-303-200.

Within fifteen days (15) of receipt of this letter, all satellite accumulation areas within the 222-S Laboratory Complex must be managed in accordance with all provisions of WAC 173-303-200, subsection (1) as provided by WAC 173-303-200, subsection (2)(c). This includes the following:

- Per WAC 173-303-200(1)(b) all waste generated within the 222-S Laboratory Complex must be managed to prevent accumulation of incompatible wastes in accordance with all provisions of WAC 173-303-630 and WAC 173-303-395.
- Per WAC 173-303-200(1)(e) all employees with waste handling responsibilities must be trained in accordance with the provisions of WAC -173-303-330 including detailed instruction regarding management and accumulation of incompatible wastes.
- Per WAC 173-303-200(1)(e) the 222-S Laboratory Complex must be operated in accordance with all provisions of WAC 173-303-340, WAC 173-303-350, and WAC 173-303-360.

Corrective Measure #2: Requirements for Generators of Dangerous Waste. WAC 173-303-170.

Within fifteen days (15) of receipt of this letter USDOE, FDH, and RFSH must:

- Ensure waste information used to designate waste from each analytical procedure conducted within the 222-S Laboratory Complex must include complete and accurate descriptions of all contributions to the waste stream from all sources including rinses, sample preparation, and sample contribution per WAC 173-303-070 (3)(c).
- Upon completing the requirements of the above bullet, all liquid mixed or dangerous waste generated from each analytical procedure operated within the 222-S Laboratory Complex must then be tested, by laboratory analysis, against these waste descriptions per WAC 173-303-070 (4) prior to transfer to any interim or final status treatment, storage, or disposal unit. To satisfy this testing requirement, and upon prior approval by Ecology, liquid wastes that share similar chemical properties to other liquid wastes may be grouped into waste streams. Waste generated from a representative analytical procedure within a waste stream may then be subjected to laboratory analysis to ensure the accurate description of the waste stream. This verification must be repeated, as necessary, to ensure accurate waste description until an Ecology approved 219-S WAP is implemented.

Corrective Measure #3: General Waste Analysis. 40 CFR 265.13.

Within fifteen days (15) of receipt of this letter, verification of all waste to be transferred to the 219-S tank system must include a thorough review of the process generating the waste to satisfy the requirements of WAC 173-303-300, subsection (2). To meet these requirements verification must include and/or ensure, at a minimum, the following:

- Waste that may be incompatible with the contents of the 219-S tank system is not accepted.
- Waste with separable organic phases is not accepted.
- Waste not meeting double shell tank acceptance criteria is not accepted.
- Verification must also satisfy the requirements set forth in Ecology's directive to USDOE in the March 7, 1995, letter titled "Listed Wastes from Hanford Laboratories," from Mike Wilson (Ecology) to James Rasmussen (USDOE). To meet these requirements verification must ensure no waste is accepted for transfer into the 219-S tank system which has not been generated from laboratory analysis of Hanford waste samples.

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- Waste generated from outside the 222-S Laboratory Complex and directed to the 219-S tank system must be authorized by Ecology, on a case by case basis, until the 219-S waste analysis plan incorporates and implements satisfactory waste verification procedures and parameters as approved by Ecology.

Return a completed Certificate of Compliance to me by April 9, 1997, as indicated in the enclosed Certificate of Compliance. Please do not hesitate to contact me at (509) 736-3031 if you have any questions regarding this letter.

Sincerely,



Bob Wilson, Compliance Inspector
Nuclear Waste Program

BW:sdb
Enclosure

cc: Robert Carter, USDOE
Charles Hansen, USDOE
James Rasmussen, USDOE
William Adair, FDH
Duane Renberger, RFSH

John Winterhalder, RFSH
Tanya Barnett, ATG
Paul Gubanc, DNFSB
Mary Lou Blazek, ODOE
Administrative Record: 222-S Laboratory